

PR-TEP-89-015  
25 AUGUST 1989



**FOREIGN  
BROADCAST  
INFORMATION  
SERVICE**

# ***JPRS Report***

# **Epidemiology**

19980715 135

**DISTRIBUTION STATEMENT A**

**Approved for public release;  
Distribution Unlimited**

**DTIC QUALITY INSPECTED 1**

REPRODUCED BY  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL TECHNICAL INFORMATION SERVICE  
SPRINGFIELD, VA. 22161

# Epidemiology

JPRS-TEP-89-015

## CONTENTS

25 AUGUST 1989

### SUB-SAHARAN AFRICA

#### ETHIOPIA

- Cases of Meningitis Reportedly Decreasing [Victoria SEYCHELLES NATION, 27 Jun 89] ..... 1

#### MAURITIUS

- New Data Links Mites to Allergies, Asthma [Port Louis THE SUN, 27 Jun 89] ..... 1

#### MOZAMBIQUE

- Aids Cases in Country Increase to 40 [Maputo NOTICIAS, 8 Jul 89] ..... 1

#### NIGERIA

- Japan's \$7.4 Million Gift for Guineaworm Fight [Lagos DAILY TIMES, 6 Jul 89] ..... 2

#### SOUTH AFRICA

- TB Rise in Cape Flats Causes Concern [Johannesburg THE CITIZEN, 8 Jun 89] ..... 2  
Efforts To Combat P. Falciparum Examined [Wilf Nussey; Cape Town LEADERSHIP, Jun 89] ..... 3

#### TANZANIA

- AIDS Spread To Increase Neonatal Deaths [Dar-es-Salaam DAILY NEWS, 3 Jul 89] ..... 6  
AIDS Trial Drugs Cost Estimated at \$8,000 [Dar-es-Salaam DAILY NEWS, 2 Jul 89] ..... 7

#### ZIMBABWE

- Rural Medical Crisis as New Doctors Stay in Cities  
[Sven Oste; Stockholm DAGENS NYHETER, 4 Jun 89] ..... 7

### CHINA

- Serotypes and Epidemiological Study of Pneumococcal Infection  
[Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY]  
No 3 Jun 89] ..... 9  
First Case of Pseudotuberculosis Found in China  
[Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI (CHINESE JOURNAL OF EPIDEMIOLOGY)  
No 3 Jun 89] ..... 9

### EAST ASIA

#### HONG KONG

- Drug Addict Confirmed With AIDS  
[Mariana Wan; Hong Kong SOUTH CHINA MORNING POST, 28 Jun 89] ..... 10  
Handling of AIDS Threat 'Ill Prepared'  
[Mariana Wan; Hong Kong SOUTH CHINA MORNING POST, 29 Jun 89] ..... 10

#### INDONESIA

- AIDS—Cases and Prevention [Jakarta KOMPAS, 3 Jul 89] ..... 11

|  |    |
|--|----|
| Scientific Development of Traditional Drugs Suggested<br>[Jakarta ANTARA NEWS BULLETIN, 23 Jul 89]           | 12 |
| Report of Deaths Due to Communicable Disease [Jakarta ANGKATAN BERSEJAJA, 1 Jul 89]                          | 12 |
| Communicable Disease Spreads to Bandung Area. More Deaths Reported<br>[Jakarta ANGKATAN BERSEJAJA, 3 Jul 89] | 13 |
| East Java Reports Increase in Cancer Cases [Jakarta ANGKATAN BERSEJAJA, 30 Jun 89]                           | 13 |

## THAILAND

|   |    |
|---|----|
| 608 People in Chiang Mai Test Positive for AIDS [Bangkok BANGKOK POST, 3 Aug 89]              | 13 |
| Bangkok Reports Tuberculosis Number Four Killer Disease                                       | 13 |
| Official Warns on Severe Dengue Outbreak<br>[Woraphot Na Nakhon; Bangkok THAI RAT, 13 Jun 89] | 14 |

## VIETNAM

|   |    |
|---|----|
| Nationwide Malaria Control Efforts. Problems Reported [Hanoi Radio, 1 Aug 89] | 14 |
|---|----|

## EAST EUROPE

### HUNGARY

|  |    |
|--|----|
| Contagious Lung Diseases Caused By Polluted Air [Budapest NEPSZAVA, 13 Jun 89] | 16 |
|--|----|

## NEAR EAST & SOUTH ASIA

### INDIA

|   |    |
|---|----|
| Center Reports High Malaria Incidence in Madras [Madras THE HINDU, 10 Jun 89] | 17 |
|---|----|

## WEST EUROPE

### DENMARK

|   |    |
|---|----|
| Minister Opposes Plan for Secret AIDS Testing<br>[Thomas Uhrskov; BERLINGSKE TIDENDE, 9 Jul 89]                             | 18 |
| AIDS Patients May Have Long Wait for DDI Medicine<br>[Anne Brockenhuus-Schack; Copenhagen INFORMATION, 19 Jun 89]           | 19 |
| Tighter Rules for AIDS Testing [Copenhagen BERLINGSKE TIDENDE, 25 Jun 89]   | 20 |
| Study Finds Health Professionals Poorly Prepared to Deal With AIDS<br>[Ruth Northen; Copenhagen DET FRI AKTUELT, 22 Jun 89] | 20 |

### ICELAND

|  |    |
|--|----|
| Officials View AIDS Statistics. Trends [Reykjavik MORGUNBLADID, 14 Jul 89] | 22 |
|--|----|

### NORWAY

|  |    |
|--|----|
| Tick-borne Encephalitis Virus Threat Viewed [Lene Skogstrom; Oslo AFTENPOSTEN, 1 Jul 89]                 | 23 |
| Health Official on AIDS Trends [Tore Oksholen; Oslo AFTENPOSTEN, 14 Jul 89]                              | 23 |
| Survey Finds Public Less Concerned About AIDS<br>[Gunilla Tengvall; Stockholm DAGENS NYHETER, 29 Jun 89] | 24 |

### TURKEY

|  |    |
|--|----|
| Diarrhea Epidemic Reported in Adana [Istanbul GUNES, 22 May 89]      | 26 |
| Measles Epidemic Reported in Southeast [Istanbul GUNES, 15 May 1989] | 26 |
| Green Locusts Seen Again [Istanbul HURRIYET, 18 May 89]              | 26 |

## ETHIOPIA

### Cases of Meningitis Reportedly Decreasing

54000095a Victoria SEYCHELLES NATION in French  
27 Jun 89 p 7

[Text] The head of the epidemiological department of the Ethiopian Ministry of Health, Iadelle Tedla, announced Tuesday that 1,512 people have died of meningitis in Ethiopia since an epidemic began last September.

Mr Tedla told the Ethiopian press agency ENA that 40,350 patients have been treated for meningitis throughout the country. Since April, the meningitis epidemic amplified by hot weather and the lack of vaccination, especially among children, is now on the wane, he continued.

Medical teams are active all over the country. The hardest hit areas are in southern Ethiopia, particularly in the Wolaita region.

Addis Ababa authorities requested 9 million doses of vaccine from the international community, notably the European Economic Community, in February.

## MAURITIUS

### New Data Links Mites to Allergies, Asthma

54000095b Port Louis THE SUN in French  
27 Jun 89 p 5

[Text] A recent medical study on asthma provides new data specific to Mauritius, namely the more or less striking absence of allergies to the sugar cane plant and to pollens in general.

The investigation confirmed, on the other hand, that allergies to mites are the chief culprits in nasal or conjunctival asthmas. The new data are presented in a report on this study (Allergic Components of Bronchial Asthma in Mauritius) put together by the "SSR Centre for Medical Studies" of the University of Mauritius.

According to Professor S. Baligadoo, who initiated the investigation, the study as a whole can serve as a basis for later work focusing primarily on the treatment of asthma. Treatment would consist, among other things, of flushing out the mites and developing new medications such as non-sedative antihistamines and specific immunotherapy.

The investigation itself involved two steps: a study on allergies to the sugarcane flower involving 110 Mauritians who were clinically examined and another preliminary epidemiological investigation conducted on 49,000 children, aged 7 to 16 years.

The two studies demonstrated that mites play a major part in allergic pathology. The responsibility of mites in

patients with positive skin tests was defined. The investigation involving children reveals a 5.8-percent prevalence rate for the disease and bronchial hyperactivity that could predispose 13 percent of them to the later onset of asthma.

Now more than ever, therefore, mites and dust in houses and especially in bedclothes (sheets, blankets, etc.) must be combated.

## MOZAMBIQUE

### Aids Cases in Country Increase to 40

54000096 Maputo NOTICIAS in Portuguese  
8 Jul 89 p 4

[Text] At the beginning of this past June, the Ministry of Health confirmed that 40 cases of AIDS had been recorded in this country, an addition of 13 cases as compared with the figures for last December. Nineteen of the 40 cases (48 percent of the total) were recorded in Maputo, where the sensitivity and refinement of diagnostic techniques are greatest. The age groups most affected are between 20 and 49 (69 percent of the cases). Among them, the most affected age group is young people between 20 and 29 (35 percent of the cases).

The variation in age of the people with AIDS is quite large; it includes a child of 10 months and an individual who is 60. Of the total, 26 are males and 14 females.

Since the first case of AIDS was recorded in Mozambique in 1986, it is known that 11 of the 40 people affected have died (more than 25 percent of the total). The number may be even higher since, due to problems in communication, it has not been possible to track all of the cases in the various provinces.

In trying to understand the significance of these data, we must bear in mind the unfavorable geographical characteristics of this country. A look at the map shows that Mozambique is located at the frontier of a region that has been sorely affected by the virus that causes AIDS. Our country is practically surrounded by countries that have already recorded a high incidence of cases, as with Malawi (2,586 cases), Tanzania (4,158 cases), and Zambia (1,296 cases). These countries, in turn, border on Burundi (1,408 cases), Kenya (2,732 cases) and Uganda (5,998 cases).

Mozambique is therefore located in an area marked by risky behavior that favors the spread of the illness. It would be unrealistic for us to think that, for whatever reason, we would be spared by the epidemic, unless we mobilize effective preventive measures.

But why has the low number of Mozambicans with AIDS continued, when we know that the frequent movement of people between Mozambique and the neighboring countries is a factor that greatly favors the spread of the disease?

Actually, we are aware that the number of officially recorded cases in our country is lower than the real number of individuals who have AIDS. The reasons for this are several: a lack of health personnel and infrastructure in areas affected by the war; insufficient diagnostic capability on the part of health personnel who are still inexperienced in dealing with this new illness; the need for official notification of laboratory confirmation of all suspected cases diagnosed in the provinces, which, for technical reasons, is only possible in Maputo. This requires the sending of blood samples of those diagnosed, which involves complicated problems of transportation and communication, especially at the district level; the lack in the marketplace of tests that are easily performed and low in cost, requiring no complex infrastructure. Such tests would offer a sensitivity that is adequate to the detection of the AIDS virus abroad in this country; in comparison with neighboring countries, for various reasons, there may be a retardation of entry of the virus into Mozambique.

Available information, meanwhile, allows for a series of conclusions: The number of cases is on the rise, and at a rate that is similar to that of neighboring countries in years past; the illness affects mainly those individuals who are sexually active (between 20 and 49 years of age), and especially young people between 20 and 29, the group that represents the main productive strength of the country; the number of deaths among those with the illness is about the same as that in other countries; given the proximity of countries affected by AIDS, and the frequency of movement of people across our borders, as well as the dynamics of the transmission of the illness, it can be expected that there will be a continued aggravation of the situation in Mozambique. This confirms the need for awareness among the authorities and the general population of this country regarding the urgent adoption of the preventive measures and behavior recommended by the educational messages issued by the National Program for the Fight against AIDS.

## NIGERIA

### Japan's \$7.4 Million Gift for Guineaworm Fight

34000687z Lagos DAILY TIMES in English  
6 Jul 89 p 28

[Text] The Japanese government has given Y969 million (about \$7.4 million) to the Federal Government for guineaworm eradication campaign and potable water supply to rural communities in Anambra State.

This follows the signing of an additional agreement of Y311 million (about \$2.3 million) yesterday in Lagos by the Finance Minister Dr Chu Okongwu, and the Ambassador of Japan, Mr Mitsuro Donowaki on behalf of the two governments.

The first part of the aid package of Y658 million (about \$5.1 million) was initiated last year between the two governments.

At the exchange of notes for the additional aid grant, Mr Donowaki said that his government sympathized with the Nigerian Government on the fact that a large number of the rural populace fall prey to the guineaworm scourge leading to serious health problem of the population, which in turn inflicts adverse effect on the economy of the country.

According to Mr Donowaki, the Government of Japan decided in the light of the foregoing to come to the assistance of the Federal Government and Anambra State in particular in their effort to eradicate the disease.

He added that bore-holing activities with Japanese assistance would begin at the end of the rainy season in a bid to providing fresh potable water for the rural populace in the state.

The Ambassador observed that the additional agreement signed yesterday is to ensure the continuation and completion of Japanese assistance embarked on last year.

In his response, Dr Okongwu, on behalf of the Federal Government and Anambra State, thanked Japan for aiding Nigeria in these two projects.

## SOUTH AFRICA

### TB Rise in Cape Flats Causes Concern

54000094a Johannesburg THE CITIZEN in English  
8 Jun 89 p 4

[Text] An estimated 12 million people in this country have "dormant" tuberculosis, and an estimated 15 percent of those people will contract full blown TB, with between 10 and 20 dying every day.

Dormant TB means they are infected by the TB bacillus, which with proper nutrition and lifestyle, will not usually affect people.

Figures for the disease in the Western Cape are among the "highest in the world", according to acting Medical Officer of Health for Regional Services Councils, Dr Stewart Fisher.

Referring to conditions on the Cape Flats, he described the disease as a "socio-economic disease with medical complications".

In Cape Town City Council areas in 1987, there were 3,709 cases, with an increase of nine percent in 1988 and an eight percent increase for the first four months of this year—a total so far of 1,459.

The prime causes for the disease in the Peninsula were malnutrition and "atrocious" living conditions on the Cape Flats.

Dr Fisher said, "We are now trying a new method whereby we are using volunteers to go to the community

to adopt TB patients". The pilot scheme was aimed at making people aware of the probability of a cure, if they were treated consistently.

Stress, caused by unemployment, had become a major factor in contracting the disease. Added to that, a large percentage of sufferers were alcoholics, said Dr Michael Popkiss, Medical Officer of Health for the Cape Town City Council.

### Efforts To Combat *P. Falciparum* Examined

54000094b Cape Town LEADERSHIP in English  
Jun 89 pp 101-102, 104-105

[Article by Wilf Nussey: "The Malady Lingers"]

[Text] The rumours have been rife for years. Malaria is spreading once again. Our Boys on the Border are coming down with some sinister new disease. Don't go to the Kruger National Park in summer: there's a new, mutant mosquito in the area that shrugs off insecticides. You can forget about your anti-malaria pills: they just don't work anymore. Cerebral malaria is spreading down from black Africa, and it's a real killer.

White peoples' fear of malaria is as old as the Portuguese explorations of Africa, when many of those who dared to venture into the interior died of it. The Voortekker Louis Trichardt lost 20 of his party to malaria on his epic journey to Delagoa Bay, and then it claimed his own life in Lourenco Marques. Black people fear it too, but philosophically; it has been with them always, and will remain with them for a long time to come. Africa is by far the world's worst-infected area.

Every year, people die of malaria in South Africa and its associated homelands and independent black states. The deaths are usually few and go largely unnoticed—except when they occur in Johannesburg, Pretoria or another urban centre where the disease is rare.

Yet the fears and rumours persist, fuelled by ignorance and undampened by the inadequate official efforts to explain this ancient, and to scientists, quite fascinating pestilence.

What are the facts? Malaria occurs seasonally over a large section of South Africa; in much of Swaziland; in parts of Zimbabwe, Botswana and Namibia; and is rife in Mozambique. While malaria control has broken down in some southern African countries, the disease is not yet gaining ground in South Africa itself.

There are no sinister new diseases attacking our Boys on the Border—just variations of the ones we've known before. There is a new strain of malaria that is resistant to the main prophylactic drug in use in southern African until now. But it responds to other drugs and no disaster is threatened on this score. Neither is there a looming invasion of invincible mutant mosquitoes.

Cerebral malaria is extremely dangerous—in fact, usually fatal—but it is not a new disease; just an avoidable, advanced stage of the old.

There would be more than ample grounds to fear malaria were it not for a remarkable, though little appreciated, campaign—a sort of epidemiological border war—which has been conducted against it in South Africa for many years. It is a sizeable operation, costing R10m to 15m a year and involving scientists in various disciplines in several institutions and many hundreds of field staff, working under the umbrella of the Department of National Health and Population Development.

Its headquarters is a pleasantly colonial building behind imposing white gates on the outskirts of Tzaneen, the steamy little town in the northern Transvaal Lowveld. About 20 entomologists, health inspectors, technicians and others work here, in cool, spacious offices and laboratories looking out over a lush tropical lawn and garden.

Together with the people at smaller branches in Eshowe, Messina and in Venda, they form the staff of the National Institute for Tropical Diseases (NITD), which has existed under various names since 1920 and has been an important liaison centre in southern Africa for malaria control since the early 1970s.

Its director is Dr Frank Hansford, a greying man of great geniality whose name is known internationally among those who specialise in the laborious, under-appreciated task of tracking down and combating disease that, but for them, would scourge the world.

Hansford hastens to explain that the NITD staff do not do the actual physical work of controlling malaria. They are the scientific detectives—investigating, pooling information, communicating with other countries and the World Health Organisation, and directing the campaign. Despite political barriers, he keeps in touch with counterparts in other African countries. "The important thing is that our control operations are run along the same lines," he says. "There is co-ordination. We are getting along pretty well."

Actual control is exercised by national health field teams, hospital and clinic personnel and general practitioners—thousands of people in a host of separate organisations. What binds them together is the ever-present threat of malaria which, but for their vigilance, would spread like wildfire.

Proof of this can be found in a comparison of charts showing that in 1938 malaria occurred throughout the eastern, northern and central Transvaal, an area including Pretoria and almost reaching Johannesburg, and in a large section of Natal stretching to the south of Durban. The severity ranged from continuous infection throughout the year in the low, hot, humid regions, to annual epidemics in the Middleveld, and occasional but no less dangerous epidemics in the Highveld. In badly hit areas like Zululand and Sekhukhuniland, as many as

10,000 people died in a single year. The 1986 chart shows malaria wiped out on the Highveld, drastically reduced in the Middleveld and held down to seasonal occurrence in the worst areas, mainly along the north-eastern and eastern borders. For a long time, malaria was all but eliminated in South Africa, with the infection rate brought down from 20 percent - 30 percent of the population in affected areas to 1 percent or less. Then it surged again...and now a new threat has appeared.

To understand why, one has to appreciate the complex malaria control system. And this is not possible without understanding the disease itself, which is no less complex.

There are nearly 3,000 different kinds of mosquitoes in the family Culicidae, which science has classified into three sub-families, one of which is the Anophelinae. This sub-family contains the genus Anopheles, which in turn contains some 40 known species present in southern Africa.

Two of these species are malaria carriers, or "vectors", as the specialists call them: *Anopheles funestus*, which has been effectively wiped out in South Africa and is therefore of no further interest, and *Anopheles gambiae*.

To complicate things further, a *Gambiae* was recently found to contain at least six sub-species. Of these, one lives in Uganda, two are limited in scope by their preference for salt water, another feeds on the blood of cattle, and a malaria-carrying fifth, the original *A Gambiae*, has, like *A funestus*, been wiped out.

That leaves just one, inexplicably named *Anopheles arabiensis*. This tiny creature, a few millimetres long, is now the villain. The disease it carries adds to the complexity. It is not a virus or a bacterium but a protozoa, one of a host of microscopic creatures forming one of the great divisions of the animal kingdom. This one is of the genus *Plasmodium*, belonging to the sub-order Haemosporidia of the class Sporozoa. Four species of *Plasmodium* infect man. All are found in South Africa, but only one—*Plasmodium falciparum*—causes serious infection.

"This is the cause of about 99 percent of the malaria in this part of the world," says Hansford, "and is the only one liable to cause complications such as cerebral malaria."

Just as the female *A arabiensis* is dependent on human blood for the protein to develop her eggs, so *P falciparum* must have both the mosquito and the human for its own reproductive cycle. It goes through an extraordinary breeding process in the stomach of the mosquito, then enters the mosquito's salivary glands and is transmitted into the human host when the mosquito sticks in its proboscis to feed on blood.

Once in the human, the protozoa travels in the bloodstream to the liver, undergoes more changes and eventually re-emerges, after which it develops further in the

red blood cells. Finally it takes on male and female forms, floats freely in the bloodstream and is ingested by the feeding mosquito—and the whole cycle starts all over again.

"What makes *P falciparum* different to other forms of malaria, and also far more dangerous, is that they reach a stage where they make the walls of the red blood cells sticky," Hansford explains. "This makes the red cells stick together and create blockages in the blood vessels which causes a condition like thrombosis. When that happens in the brain, you have cerebral malaria."

This, he emphasises, is not a different kind of malaria but purely an advanced form of it, generally resulting from late diagnosis of the disease. People sometimes dismiss malaria symptoms as those of influenza. And in areas where malaria is rare, doctors do not routinely test for it.

The ongoing attack on malaria is three-pronged: kill the mosquito carrier, build defences against both the insect and its parasite passenger, and tackle the disease clinically when it finds victims. Measures have changed in fascinating ways over the past decades.

In the last century there wasn't much people could do about malaria except stick to high ground, avoid camping near water, take quinine, and drink lots of gin and tonic.

With increasing knowledge and the growing settlement of the Transvaal Lowveld and northern Natal from the turn of the century onwards, the defences become mosquito nets over beds and hung from the brims of hats; fine gauze on doors and windows; and expensive, fast-spreading oil sprayed onto water where mosquitos could breed, although this last was an impossible task to complete.

Paradoxically, then as now, malaria is most dangerous in areas where it is least common. This is because people who are constantly exposed to it tend to develop a tolerance. When a malaria epidemic spreads to the vulnerable population of a non-endemic area, it strikes hard. When, up to the 1930s, occasional epidemics broke out in places like Rustenburg, Pretoria, Middelburg, Newcastle, Vryheid, Durban and Umzinto, many people died. During one bad epidemic in Durban, victims were buried in mass graves.

The first breakthrough came in the mid-1930s with pyrethrum, the quick-acting and deadly insecticide made from the pretty white flowers of that name.

Mosquitos were known to feed on people in their homes (especially black people, who could not afford the luxuries of gauze and netting) for two or three days, then to go out to lay their eggs, and to return. Dr Siegfried Annecke, the peppery, dynamic director of the anti-malaria drive at the time, and Dr Botha de Meillon, another prominent figure, decided to "hammer the mosquito inside the

houses". They cooked up a stock of poison from pyrethrum blossoms and tried it out in the Lowveld's Letsitele Valley, spraying either weekly or fortnightly.

"They were absolutely amazed by the effect," says Hansford. It was so dramatic that the spraying was extended into Natal, with similar results. Mosquito populations crashed. Two problems remained, however: pyrethrum's deadliness was short-lived, and spraying every two weeks demanded a huge and expensive operation.

But then, just after World War Two, came dichlorodiphenyltrichloro-ethane—or DDT. Although it stands widely condemned today for its devastating cumulative effect on ecology and the environment, and its use has been generally prohibited, DDT has saved an immeasurable number of lives through its use against malaria alone.

In fact, DDT is still used in the struggle against malaria, but indoors only, so that it cannot escape into the environment.

The effect of DDT was even more dramatic than that of pyrethrum—akin to the discovery of penicillin. "Annecke went to town on it," says Hansford. "Returned soldiers were hired to carry out mass spraying of houses." In Lowveld areas like Ofcolaco, where 20 percent-30 percent of the children were known to have malaria parasites in their bloodstreams, the infection rate dropped to 1 percent and less. The campaign was extended to Zululand, and the results were the same.

Today, in the Transvaal, nearly one million structures are sprayed every year. In the Transvaal and Natal about 80 control teams, comprising 10 sprayers, a couple of supervisors and a team leader, spray homes between September and March, and for the rest of the year test people for malaria. Each team is responsible for 15,000 to 20,000 people.

It was during the house-spraying that the local *Anopheles gambiae* was discovered to be not one but five different mosquitoes (with a sixth cousin in Uganda), of which two were malaria vectors: the original *A. gambiae* and *A. arabiensis*. The spraying virtually wiped out *A. gambiae* and *A. funestus*, which were largely house-bound feeders, but when *A. arabiensis* became irritated by insecticide, it promptly went to seek its human blood supply outdoors. So it survived and continues to spread its dangerous load. The irony is that the campaign against malaria was so successful that it laid the foundations for future epidemics. Great tracts of formerly malarial country were opened up to farming, forestry and other development.

The Lowveld in particular thrived. People flocked in and towns mushroomed. Bush was cleared, enhancing mosquito-breeding conditions. Much the same thing happened in northern Natal, if on a smaller scale. And because malaria was always present, although not widespread, all these people were vulnerable as they had no

tolerance to the disease. These factors combined to lead to a renewed outbreak of malaria from the 1960s onwards.

The upsurge started in 1967 with the help of the weather—a cyclone, accompanied by heavy rains. A sugar factory was being built at Malelane on the southern edge of the Kruger National Park. In the general shambles, many workers were sleeping in tents and under plastic. *A. arabiensis* multiplied and malaria flared up.

It has happened repeatedly since. Epidemics followed by Bushbuckridge and in Barberton. In Lebowa, 2,000 people suddenly fell ill. The Lebowa health authorities nipped the outbreak in the bud by taking 24,000 blood smears and immediately providing treatment. A few years ago, Cyclone Domoina prepared the way for a similar upsurge in Natal. Botswana usually has some 200 cases a year. After good rains last year, it had 21,000.

The NITD keeps voluminous computerised records of malaria cases, compiled from the reports it gets from all its sources, including the people doing the annual spraying and taking blood smears as a continuous check for its appearance—35,000 smears in the Transvaal alone every month.

"We can get only so far by controlling the mosquito," says Hansford. "So the other thing is to go for the parasite and to try to get every case diagnosed and treated properly."

For this massive detection job, investigators visit malaria patients in hospital to find out where they picked up the infection. Then they go out to the scenes of infection, take hundreds of blood smears to test other people, and treat those who show up positive.

A recent report in the SOUTHERN AFRICAN JOURNAL OF EPIDEMIOLOGY AND INFECTION by doctors P. W. Strebel, Hansford and H. G. V. Kustner states:

"Compared to the malaria distribution in 1938, the maps of 1978 and 1981 both indicated a reduction in the extent of the malaria-endemic areas. However, since 1984 the number of malaria notifications has shown a marked increase. The 1985 total of 11,322 notifications represents the highest annual total since malaria became a notifiable disease in 1956."

There were 7,061 cases in South Africa in 1986, of which all but 503 were in the Transvaal and Natal (including their homelands).

Fully 44 percent of the Transvaal and Natal cases were "imports": migrant workers from Mozambique, Swaziland and, to a lesser extent, Zimbabwe.

While this internal and cross-border migration persists, says Hansford (and it is never likely to end), there is no hope of permanently eradicating malaria in South Africa. Migrating Mozambicans are rigorously checked. But such barriers are inevitably loopholed. And several



of South Africa's neighbours cannot cope with malaria. "Many African countries can spend perhaps 50 cents or R1 a year per head of population to cover all illnesses. Malaria control alone might cost R2 per head. They just can't afford it," he says.

Now a fresh menace has appeared—the source of all the rumours about the Boys on the Border. It is a drug-resistant form of the culprit parasite *P falciparum*.

The main drug in current use for preventing malaria is chloroquine, the staple of several proprietary preparations. "Five or six years ago you could tell people, 'just take chloroquine and you won't get malaria'," says Hansford. "You can't do that any more."

Resistant *P falciparum* strains were first found in Colombia in 1961, and in Thailand in 1962. It became a problem among U.S. troops in Vietnam. In 1977 it was found in East Africa, very probably brought in by Chinese labourers working on the TanZam railway. From Kenya and Tanzania it spread down the Mozambique coast, through West Africa and into Angola, and has reached the northern border of Namibia.

In 1983, the resistant strain appeared in Natal and KwaZulu—obviously brought in by cross-border travellers—and by 1987 some 20 percent of malaria sufferers were carrying it. It has also appeared in the Transvaal where 20 to 30 of the annual average of about 4,000 malaria victims have it.

"It is probable this resistance will extend," warns an NITD publication, but Hansford is quick to stress that there is no cause for alarm. There is most definitely no epidemic looming, as the gloomsayers would have it. It does respond to other drugs and can be contained, though with more effort than the familiar old *P falciparum* parasite.

There are 10 or more brands of malaria prophylactics on the market containing various drugs or combinations of them. But Hansford and most other experts still recommend chloroquine as the number one drug, despite *P falciparum*'s resistance to it.

The other drugs are all good and attack the parasite in different ways, but also have different side effects. One, for example, may affect the white blood cells in about one in 10,000 people, perhaps fatally. Others are sulphonomides, to which some people are allergic.

"We believe chloroquine is probably the safest. So use it, but be warned that, even in moderate-risk areas, you may still contract malaria because of the resistant strain.

"Then, if you do become ill, use the proprietary preparation Fansidar. It contains sulphadoxine and pyrimethamine and works quite well against the resistant parasite. The use of Fansidar in Natal in 1987 cut the 20 percent relapses of the resistant strain down to 0.6 percent." The only problem, he adds, is that some people might react allergically to the sulphadoxine.

Hansford also urges a return to the precautions of the old days. Anglers should wear long sleeves and trousers, use insect repellent, even wear mosquito netting draped from their hat-brims, and keep moving to disturb the insects. Sleep under netting, and place gauze over windows and doors. Pregnant women should take special care because they are liable to severe attacks which can kill them or their unborn children.

Also, prophylactic pills, whether chloroquine or any of the others, should be taken regularly and not haphazardly, which might mask the sickness.

The symptoms of all kind of malaria are similar. Those of *P falciparum* appear seven to 10 days after *A arabiensis* has bitten. Initial symptoms are lassitude and vague pains. Then comes a sudden attack, usually early in the morning, consisting of a headache and pains in the muscles and joints; shivering, followed by a high temperature and a sensation of heat; and then sweating.

An attack can last 36 hours, followed by a week of rising and falling temperatures. Do not wait that long—call a doctor. The longer the delay in treatment, the likelier it is the disease will progress to one or more severe and extremely unpleasant complications, and possibly death.

By far the greatest defences against this ancient scourge of mankind are knowledge and vigilance, in the individual and in the whole community.

## TANZANIA

### AIDS Spread To Increase Neonatal Deaths

54000092b Dar-es-Salaam DAILY NEWS in English  
3 Jul 89 p 3

[Text] The spread of the Acquired Immune Deficiency Syndrome (AIDS) is likely to reverse the success achieved in Tanzania so far in reducing neonatal and infant deaths, according to Dr. W. M. Nkya of the Kilimanjaro Christian Medical Centre (KCMC) in Moshi.

He told the on-going workshop in Arusha on population and family life education curriculum review that the proportion of infected women transmitting HIV to their newborn children "is expected to increase resulting in an epidemic of paediatric HIV infection and death."

Dr. Nkya, who represented the northern zone reference centre for parasitic and infectious diseases said over the weekend that the spread of AIDS would "definitely add to the already intolerable levels of neonatal and infant deaths."

He said in some areas the prevalence rate of the disease was up to 14 per cent among pregnant women and in high risk groups such as prostitutes the prevalence rate was up to 88 per cent.

The main thrust of control of transmission, he said should be health education for all sexually active men and women.

He advised that education about AIDS should begin at an early age in order to make adolescents approaching sexual maturity aware of the devastating effects of AIDS.

"Preventing the development of a life style or habit has a higher chance of success than efforts aimed at modification of an established behaviour," he said.

The most common mode of transmission of the virus is sexual intercourse.

Transmission of AIDS in Africa, he said, was further complicated by the existence of "infected pools of people and mobile transmitters."

Dr. Nkya explained that professional prostitutes and barmaids were likely to be in the infected pool while young businessmen, truck drivers and privileged civil servants were likely to be among the transmitters.

Health education focusing on AIDS is being included in the revised curriculum on population and family life education.

Meanwhile, Kagera residents have been called upon to step up efforts in the fight against AIDS, which has reached alarming levels in the region.

The call was made by a Member of the National Executive Committee (NEC), Ndugu Abdallah Rashid Abdallah who is also the Zanzibar Deputy Minister for Communications and Transport.

Ndugu Abdallah was addressing hundreds of Bukoba residents who turned up for the Solidarity Walk at the Kaitaba Stadium.

He said the AIDS epidemic was more fatal than the Kagera war against dictator Idd Amin and asked the residents in the region to double efforts to combat the disease which had so far claimed hundreds of lives.

#### **AIDS Trial Drugs Cost Estimated at \$8,000**

54000092a Dar-es-Salaam DAILY NEWS in English  
2 Jul 89 p 3

[Text] The Minister for Health Dr. Aaron Chiduo has said that the cost of treating an AIDS patient differs according to the drugs used, adding that in some cases it amounted to Tsh1.2m (\$8,000) per year if dispensed with AZT drug.

Answering Professor John Machunda (Ukerewe), the minister said several drugs have been tried but so far none has proved to be of effective cure against Acquired Immune Deficiency Syndrome (AIDS). He said the majority of medicines have only helped improve the condition of the patient, but not cured the disease.

He named such drugs as "SURAMIN, HPA-23, AZT, DDC, MMI" and countless other drugs being experimented all over the world.

Answering another question from Major Sigela Nswima (Mpanda), Dr. Chiduo said local herbs which were being experimented in the country were among the many drugs whose names have not been disclosed by either the traditional medicinemen or researchers.

In his initial question Professor Machunda had wanted to know which medicines were being experimented upon, at what cost and which drugs were showing signs of success.

### **ZIMBABWE**

#### **Rural Medical Crisis as New Doctors Stay in Cities**

54002502 Stockholm DAGENS NYHETER in Swedish  
4 Jun 89 p 11

[Article by Sven Oste]

[Text] They come to the mission hospital in Mnene from 193 poor villages—with bronchial infections, malaria, venereal diseases, and job injuries. As they have in all the years past.

But venereal diseases are now on the rise—and slipping in under that heading is AIDS.

Gunnar Isaakson, assisted by two black nurses, was at work in the small operating room. He was cutting an abscess from a patient's chest. It would be examined to determine whether the old man had cancer.

It was done quickly and expertly. Gunnar Isaakson is a surgeon, and he has been in Mnene several times. Work there provides wide experience because one is faced with so many diseases and problems, he says. Statistics show that more than 1,600 major or minor operations were performed at the Mnene Hospital last year.

A Church of Sweden mission has been at work here since the turn of the century, and the first doctor arrived more than 60 years ago. Now the hospital, with 218 beds, is one of the largest rural hospitals in Zimbabwe.

#### **Missionaries**

The Church of Sweden pays a small share of the costs. Responsibility for salaries and most of the meager budget rests with the Zimbabwean Government. But the six doctors in the Mberengwa District, which has 193 villages and 190,000 inhabitants—are all foreigners and missionaries.

Zimbabwe's government maintains that the country's young doctors who have received their medical training at the state's expense should serve 5 years in the rural areas. But that idea meets with strong resistance. Zimbabwean doctors claim that the district and provincial

hospitals do not pay enough. They point to all the disadvantages: long workdays, a lack of medicines, primitive conditions, and isolation.

Without the missionaries, there might not be a single doctor here in the Mberengwa District.

### Undernourishment

It is a poor district with a few small mines but no industry. The people make a living from small patches of land and a few cows. Drought, which prevailed for a number of years up to 1988, means undernourishment or starvation, and disaster is averted thanks to food assistance from northern Zimbabwe. And with rain, which has occurred last year and this year, comes malaria.

About 20,000 new patients were admitted to the Mnene Hospital last year. The corresponding figure for all hospitals and clinics in the district was 178,000. The breakdown of diseases (diagnoses) in the entire district in 1988 was as follows: bronchial infections: 30,000; injuries received at work or as a result of violence: 11,000; venereal diseases: 10,500; skin diseases: 8,900; eye diseases: 8,300; diarrhea (mostly among children): 6,700; and malaria: 4,900.

That is a typical picture of tropical diseases and of poverty. When I visited the hospital in Bindura north of Harare, I found the distribution of diseases there to be more or less the same, although malaria ranked somewhat higher among adults.

Both in Mberengwe in the south and in Bindura in the north, estimates indicate that about 60 percent of all births take place in hospitals.

Venereal diseases are high on the list and reflect the living pattern. A survey of 100 expectant mothers in the Mberengwe District provides some of the background.

On average, the women had attended school for 6 years, and 73 of the 100 surveyed felt that they could read satisfactorily, while 11 could not read at all.

### Home Brewed Beer

One-third of the men lived far from home, and 20 had more than one wife. Sixty-two of the families had cows—an average of five—but their income came from agricultural products and the sale of home brewed beer: 75 of the 100 surveyed made beer at home, and 67 of them brewed it for sale.

Of the women, 26 had been battered by their husbands during the previous year—and in 15 of those cases, the man had been drunk. Fifty of the men go regularly—three times a week—to a beer hall. It is the poorest who go there most often.

Fifty-eight of the women answered yes when asked if their husbands visited prostitutes. Only 14 said no.

One-tenth of the women had had a venereal disease at some time in the past. One-third felt that their husbands had been infected at some point.

Gunnar Isaakson and his wife Gunvor emphasize that the entire pattern is extremely dangerous. They see venereal diseases increasing, with AIDS as the new element among people whose resistance is undermined by poor eating habits and periodic famine.

Through December of last year, the Mnene Hospital had handled six or seven cases of HIV infection. But it admitted seven new cases just in January and February of this year. There is reason to believe that the number of undetected cases is very high, say the doctors in Mnene.

### AIDS Threat

Up in the government district in Harare, there is a reluctance to dramatize the AIDS threat in Zimbabwe. When I discussed the matter with Minister of Health Felix Muchemwa a few months ago, he exploded:

“If I make a lot of noise about AIDS, I can get as much money as I want from abroad. But it is malaria and the other traditional diseases which are the big killers. And appeals for help are arriving constantly from the provinces and districts. We lack medicines and vaccines for the fight against widespread diseases.”

The doctors in Mnene understand that reaction. As long as the outlook remains what it is in today's situation, but not from the standpoint of the situation in the future.

Along toward evening, many people leave the hospital's low buildings and wander down to the church. There they all—including many patients—gather for prayers in the Shona language. Afterward, they greet each other outside the church.

The next morning, some of them will go back to their home villages healthy. Back to undernourishment, the lack of water, and seven or eight people living in one hut.

The old man who lay on the operating table could not be helped by Gunnar Isaakson. The test showed that he had cancer. After a few days, he would return to his home village to await the end.

### **Serotypes and Epidemiological Study of Pneumococcal Infection**

54004815a Beijing ZHONGHUA LIUXINGBINGXUE  
ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY]  
in Chinese Vol 10 No 3 Jun 89

[Article by Shen Senju and the Cooperation Group on Pneumococcal Serotyping, Jiangxi Institute of Medical Science]

[Abstract] During the years 1982 to 1985, 482 strains of *S. pneumoniae* were isolated in 18 provinces (cities) in China. There were 67 strains from the patients of pneumococcal pneumonia, 169 strains from pneumococcal meningitis and 246 strains from pneumococcal otitis media. Their serotypes and epidemiology were studied and the following results were obtained. The rate of pneumococcal pneumonia, meningitis and otitis media was 14.26 cases, 79.08 cases and 68.14 cases per 1,000 homologous disease cases, respectively. Most of the

infections occurred in infants while 73.7 percent pneumococcal meningitis, 63 percent otitis media and 40.3 percent pneumonia were in the 3 year old group. The mortality of patients with pneumococcal pneumonia was 16.4 percent and with pneumococcal meningitis was 16 percent. All of the isolates of *S. pneumoniae* were identified using typing antisera (Statens Seruminstitut, Copenhagen). The main types were 5, 6, 1, 19, 2 and 14, which accounted for 56.8 percent (274 strains) of total numbers of strains. Type 5 was the main serotype and accounted for 13.3 percent (63 strains).

### **First Case of Pseudotuberculosis Found in China**

54004815b Beijing ZHONGHUA LIUXINGBINGXUE  
ZAZHI (CHINESE JOURNAL OF EPIDEMIOLOGY)  
in Chinese Vol 10 No 3 Jun 89 p 148

[Abstract] The first case of pseudotuberculosis in China was reported. From the patient's stool, a strain of *Yersinia pseudotuberculosis* was isolated. The isolate has all the classical characteristics of *Yersinia pseudotuberculosis* and belongs to serotype IV.

## HONG KONG

**Drug Addict Confirmed With AIDS**

54004029 Hong Kong *SOUTH CHINA MORNING POST* in English 28 Jun 89 p 3

[Article by Mariana Wan]

[Text] The government is strengthening its anti-AIDS campaign following the discovery of Hong-kong's first ever intravenous drug addict to be tested positive for the HIV antibody.

The AIDS carrier, a Chinese male, was tested positive in a Government rehabilitation centre last month, confirming a fear that more IV drug users could be infected by the deadly disease, as in Thailand and European countries.

The new case brings the number of AIDS carriers in Hongkong to 145, of whom 22 have developed full-blown AIDS. There have been 13 AIDS deaths.

The head of the AIDS Counselling and Health Education Service, Dr Patrick Li Chung-ki, said the Government was now stepping up its AIDS prevention campaign among drug users.

There are about 39,000 active drug users in Hongkong, with about 20,000 heroin addicts injecting the drug.

The government plans to produce videos for the high-risk group. This is in addition to the current health education campaign for drug addicts and voluntary workers in rehabilitation centres.

A Government consultant and chairman of the AIDS scientific working group, Dr Yeoh Eng-kiong, said the newly diagnosed AIDS carrier was likely to have contracted the disease through the use of contaminated hypodermic needles shared with other users.

A recent survey on the behaviour of local drug users revealed that 23 1[2] per cent had shared needles on at least one occasion.

Of the 2,743 polled, 435 admitted having shared their needles with others the first time they used the method.

AIDS experts attending the Fifth International Conference on AIDS in Montreal earlier this month expressed fears that the number of AIDS cases related to IV drug users might outgrow the number of cases among homosexuals.

By 1990, about 28,400 AIDS cases will be related to IV drug users in Europe, compared with 26,100 cases which will be homosexually spread.

In Thailand, the number of IV drug users found to be HIV carriers has also mushroomed from one per cent of the total drug addict population in 1987 to 40 per cent.

But Dr. Yeoh said the number of HIV-infected IV users might not grow as fast in Hongkong because sharing needles among local addicts was less prevalent.

Needles were easier to get in Hongkong than in most other countries, so large scale sharing was unlikely.

The presence of a methadone program in Hongkong was also one way of combatting the spread of the virus, he said.

But since the surveillance program on drug addicts is optional, only 3,446 drug users have been tested in government laboratories, which means more addicts might have contracted the disease unknowingly.

Once contracting the disease, IV drug users are capable of spreading it either through sexual activities or through parental transmission.

**AIDS Seminar**

AIDS experts from 10 Asian countries are in Hongkong today to discuss ways of combatting the deadly virus.

During the three-day seminar, 70 researchers will present 40 papers and discuss the possibility of setting up a regional information centre on AIDS and the prospects of regional collaboration on the prevention and control of the disease.

Leading speakers include local professionals Dr Yeoh Eng-kiong, Dr Patrick Li Chung-ki and Dr Yeung Hin-wing; Dr M. Essex of Harvard University, Professor Zeng Yi of the Chinese National Commission on AIDS Prevention, and Dr M. Carballo of the World Health Organisation.

An exhibition on Understanding AIDS will also be staged at the New Town Plaza in Sha Tin to promote public awareness of the disease.

Members of the public are welcome to attend the seminar, which will be staged at the Cho Yiu Conference Hall of the Chinese University.

**Handling of AIDS Threat 'Ill Prepared'**

54004030 Hong Kong *SOUTH CHINA MORNING POST* in English 29 Jun 89 p 3

[Article by Mariana Wan]

[Text] The Government was yesterday strongly criticised for its "short-sighted approach" in tackling the worsening AIDS problem in Hongkong.

Dr Jeffrey Day, from the University of Hongkong's Faculty of Education, took the Government to task for not allocating funds for AIDS research.

He said although figures showed the disease had a hold in Hongkong, the territory was still "desperately ill prepared for it."

"Hongkong's reaction to the threat of AIDS has been essentially the same as its response to any problems," Dr Day said on the opening day of an AIDS conference.

"It is the response of a near-sighted Government to whom five years is long-term planning."

He also warned that Hongkong's future teachers were ill-prepared to counsel or educate future pupils on AIDS, the disease which kills by destroying a person's immune system.

Dr Day, who is also chairman of the Community Drug Advisory Council, was speaking at a seminar, "AIDS in Southeast Asia and the Pacific Region: Strategies for Prevention and Control—the Role of Institutions of Higher Education," at the Chinese University.

In Hongkong, there were no reports of research into either the medical or sociological aspects of AIDS-related diseases, he said.

"This is perhaps not surprising in a territory notorious for under-funding of all research and where, in most faculties and departments, higher degree research is undertaken on a part-time basis and post-doctoral research is hampered by exceptionally heavy teaching loads," he said.

Dr Day said Hongkong should waste no time in strengthening its long-term commitment in combatting the spread of AIDS, with the increased emergence of carriers and patients in the territory.

Since the start of a Government surveillance program in 1985, the number of AIDS carriers has grown to 145, of whom 22 have developed the full-blown disease.

The number of AIDS patients who remain alive has almost also doubled from five in 1987 to nine.

Dr Day said the Government might have underestimated the problem as it put the actual number of carriers at only 1,000 in a population of 5.5 million.

The Government should use part of its huge budget surplus to fund AIDS research, he said.

He warned that Hongkong's medical and sociological experts would see research work on AIDS as a low priority until funds were made easier to obtain.

"In Hongkong, we have no place to quietly lose a population of AIDS victims waiting to die," he said.

Dr Day said tertiary institutions had a moral responsibility to provide students with the means to protect themselves and prepare them for the future role of educating or counselling others.

However, recent research had found that students at colleges of education, which train teachers for primary and junior secondary schools, were generally too ill-prepared to counsel or educate their future pupils.

In the University of Hongkong, students majoring in Biology Education received only one lecture to prepare them for sex education courses in the future, which Dr Day considered inadequate.

Government consultant and chairman of the AIDS scientific working group, Dr Yeoh Eng-kiong, agreed that Hongkong had suffered from the lack of research funds.

He further identified the problem as one which lacked community support when compared to other Western countries.

Dr Hamish Dyer, senior medical adviser (Southeast Asia Zone) of Wellcome Singapore Pte, also stressed the importance of education in preventing the massive spread of AIDS in the region.

"At the moment, the problem is still relatively small in scale," he said, adding however that the number of AIDS carriers was increasing rapidly.

"This will result in a major problem within the next few years as carriers begin to develop symptoms," he warned.

He quoted Thailand as "a sobering example," in which the number of AIDS carriers had risen within two years from under 10 to over 5,500.

As of March this year, 70 cases of AIDS have been reported to the World Health Organisation in nine Southeast Asian countries. A combination of official and unofficial sources, however, record this figure as being 98 until the end of April, with only 21 of these patients still alive.

The number of identified HIV carriers in Southeast Asia including China, the Philippines, Hongkong and Thailand, totalled almost 6,000.

This figure may well be an under-estimation, as China has only recorded 18 carriers, with 14 of them being foreigners who were asked to leave the country and four Chinese haemophiliacs who became infected with imported blood.

This figure was described by Professor Zeng Yi, vice-chairman of China's National AIDS Committee, as revealing only "the tip of an iceberg" and an "underestimation."

Professor Zeng told yesterday's conference this was a result of limited screening, targeting only the high risks groups.

## INDONESIA

### AIDS—Cases and Prevention

54004323d Jakarta KOMPAS in Indonesian  
3 Jul 89 p 6

[Text] After the two other sexually-transmitted diseases syphilis and gonorrhea, AIDS has become the health

problem which requires the strongest response in Indonesia. However, monitoring these three diseases is not easy considering the social and cultural factors involved; most of the victims do not go to a Public Health Center (PUSKESMAS).

At the opening session of the Congress of Indonesian Dermatologists and Venerologists (PADVI) Thursday afternoon [29 June] the Minister of Health's opening statement was read by Dr Gandung Hartono, director general for Eradicating Communicable Diseases (P2M). The minister stated that it is difficult to obtain accurate data on the number of cases of these diseases. Based on the 1988 report, however, the figures are 2.25 cases of syphilis and 16.9 cases of gonorrhea per 100,000 people.

Up to now there have been four known cases of AIDS in Indonesia, three foreigners and one Indonesian male. All four have died. In addition, 11 others have tested serum-positive for HIV.

Before the start of the sixth PADVI Congress, attended by 300 participants and 100 other invited guests, there were exhibits, panel discussions and guest lectures. The Congress will conclude on Saturday [8 July].

### Difficult to Prevent

The minister stated that because Indonesia is an open society it is obviously difficult to prevent AIDS from coming into the country. One way to increase awareness of the problem is to place it in its proper proportions.

He said that the highest priority set by health ministers throughout the world has been placed on education and the dissemination of health information. A way must be found to motivate high-risk groups to use protective devices during sexual activities; this could prevent at least 90 percent of cases of the spread of the disease.

In addition to sexually-transmitted diseases, the minister also said, the highest priority for communicable skin diseases is for the eradication of leprosy and yaws. Leprosy, always misunderstood by the public, actually can be cured. The problem is how to control the regular administration of the medicine. Because leprosy is usually discovered and treated too late, the disease can develop and cause severe deformities.

There are about 120,000 cases of leprosy in Indonesia. About one third of them are registered as communicable cases. Nevertheless, there now exists the MDT [expansion unknown] course of treatment recommended by the World Health Organization; leprosy can be cured in the relatively short time of 6 months to 2 years.

Yaws, always considered an indication of a country's backwardness, now exists in Asia only in Indonesia and Papua New Guinea as well as in some countries in Africa and Latin America. There are no longer as many cases as there used to be. However, efforts must be made to eradicate it completely because it is still found in villages in 15 Indonesian provinces. Ironically, many young

doctors do not recognize the disease, and this itself is a factor in obstructing its total eradication.

### Scientific Development of Traditional Drugs Suggested

54004328 Jakarta ANTARA NEWS BULLETIN  
in English 23 Jul 89 p A-8

[Text] A public health expert has expressed his concern over the absence of scientific development of the use of traditional drugs of herbal origin in Indonesia, in spite of the fairly large number of experts in this field in the country.

Dr. Nugrobo Iman Santoso told newsmen here Friday that traditional drugs are considered more superior than "modern" medicines, whose side effects can endanger human health.

He said that public health experts in Indonesia, now totalling 1,095, should be called upon to discuss various measures to prepare the scientific development of traditional drug utilisation.

For this purpose, the University of Indonesia's public health faculty alumni association will hold two seminars, concerning rational utilisation of traditional drugs for the promotion of public health, and popularisation of public health funds and other forms of health insurance.

Nigroho, who is also general chairman of the faculty's 24th anniversary commemoration committee, said that each of the seminars is expected to be attended by around 200 public health experts from throughout the country, besides interested individuals in society.

### Report of Deaths Due to Communicable Disease

54004323b Jakarta ANGKATAN BERSENLATA  
in Indonesian 1 Jul 89 p 2

[Text] Eight villagers died from an epidemic of diarrhea and vomiting [cholera] which attacked three villages in Ciampea, Bogor County [West Java]. Sixty others are being treated in the hospital.

Villagers in the Ciampea area were hit by last month's epidemic of diarrhea and vomiting. Drs Oscar Saragih, head of public relations for Bogor County, said that it is hard to prevent such an epidemic until the masses adopt a cleaner and healthier way of living.

Eddie Yoso Martadipura, Bogor county chief, hopes that the masses will be able to respond quickly to the epidemic of diarrhea and vomiting. He emphasized that all levels of the local government should tirelessly continue to provide information down to the lowest level of society.

He mentioned as examples the Kemantren Babakan Madang Citeureup, Ciawi, Ciampea areas, which have been hard hit by diarrhea and vomiting. He has instructed the POSYANDUs [Integrated (Health) Service Posts] to serve residents of the area 24 hours a day.

Several rivers have become polluted with waste matter and might be causing this epidemic of diarrhea and vomiting. He gave an example the area around the Cikias in Kemantren Babakan Madang in which nine people died and 200 had to be treated.

### **Communicable Disease Spreads to Bandung Area, More Deaths Reported**

54004323c Jakarta ANGKATAN BERSENJATA  
in Indonesian 3 Jul 89 p 5

[Text] The epidemic of diarrhea and vomiting [cholera] has begun to spread to Bandung County. Twelve people from Cicalengka were reported under treatment at the local PUSKESMAS [Public Health Center]. Three of them are seriously ill.

People in the area say that there have been many more cases. Some of them did not go to a hospital for treatment because they recovered at home. Those who are being treated at the PUSKESMAS have been placed in a separate ward and are being fed intravenously. PUSKESMAS officials say that the epidemic of diarrhea and vomiting comes from unstable [as published] food and water.

It was reported that the same epidemic has attacked 10 female workers at a textile factory in the Cimahi district. These workers at the KH Textile Plant are being treated at Cibabat General Hospital in Cimahi. They contracted the disease at work. The first victim was Sukismiati, a resident of Leuwigajah, Cimahi. After visiting Sukismiati in the hospital, Nurhayati, 24 years old, also contracted the disease. During the visit she lay down on the patient's bed for a while. When she went home, she got sick and had to be taken to the hospital. The next day other coworkers got sick and had to be sent to the hospital. As of last Tuesday [27 June] five people were still in the hospital. They are all residents of Cimahi. The best hunch is that the disease was caused by unhealthy conditions in the plant and by infected food and drink.

Bandung County has been well-known for the past few years as an area often attacked by epidemics of diarrhea and vomiting. Almost every time there is a change of season the disease become epidemic and there are many victims, some of whom die.

### **East Java Reports Increase in Cancer Cases**

54004323a Jakarta ANGKATAN BERSENJATA  
in Indonesian 30 Jun 89 p 4

[Text] The Jember [East Java] branch of the Cancer Institute's managing board, part of the Jember Health Service, told ANGKATAN BERSENJATA recently that thousands of cases of breast and uterine cancer have been seen in the Jember area.

One of the members of the managing board interviewed by ANGKATAN BERSENJATA admitted that most of the cancer patients did not come for an examination

until it was too late. Treatment therefore takes a very long time. It is not hard to cure cancer in its early stages.

Examinations show that in general these cancers are due to viral infections and to other factors. The men usually have cancer of the lungs and liver.

The Jember branch of the Cancer Institute, which was established a year ago, has created 30 PKK [Family Welfare Development] cadre positions whose job it is to provide the public with information. This information is passed along as part of the PKK's activities and for the time being can be found in Rambipuji. The creation of more of these cadre positions is being encouraged with the hope that they will be able to provide the public with information [repeated section omitted] and that more and more cancer cases will be examined and discovered at an early stage. When it is still small, cancer can be prevented, said that director of Jember's Cancer Institute.

## **THAILAND**

### **608 People in Chiang Mai Test Positive for AIDS**

BK0308020189 Bangkok BANGKOK POST in English  
3 Aug 89 p 3

[Excerpt] Some 267 active prostitutes tested HIV-positive during the latest survey by the provincial Public Health Office, Dr Anuson Sitthirat, deputy public health officer, said yesterday.

Dr Anuson said that of 7,000 people tested since January 1988, 608 were HIV positive. This number includes 267 prostitutes, 86 drug addicts, 170 blood donors, 10 prisoners, and 75 others.

He also said AIDS is spreading at a faster rate in this northern tourist destination than in the provinces of Songkhla, Phuket and Chon Buri. [passage omitted]

### **Bangkok Reports Tuberculosis Number Four Killer Disease**

BK0108110189 Bangkok TNA in English 0727 GMT  
1 Aug 89

[Text] Tuberculosis [T.B.] is the number four killer disease in Thailand with more than 120,000 patients throughout the country, senior physician said here Monday.

Dr. Thira Ramasut, director of the Communicable Disease Control Department here told reporters that there are more than 120,000 people suffering from the disease. He said hospital throughout the country could accommodate only 60 percent of the number and the rest are still spreading the disease. He said his department received increased annual budget of 77 million baht (26 baht is worth one U.S. dollar), a rise of 130 percent from the previous year.



T.B. is considered a public health problem because it is still not possible to control the spread of the disease, Dr. Thira said.

He pointed out that the Public Health Ministry now has a new medication capable of curing patients in only six to eight months, instead of the two-year treatment it was offered last year.

Dr. Thira said the ministry has set a deadline at the end of the Sixth National Economic and Social Development Plan to control tuberculosis to the extent that no more than three out of 10,000 people will be affected by the disease.

Meanwhile Deputy Permanent Secretary of the Ministry Dr. Pralom Sakuntanat said the Bangkok Metropolitan Administration is joining the ministry in organising an anti-tuberculosis week between August 7-13 at one of the leading shopping complex here. The aim of the exhibition is to promote public awareness that T.B. is a chronic disease which drains human resources of the country.

### Official Warns on Severe Dengue Outbreak

54004322 Bangkok THAI RAT in Thai 13 Jun 89 p 5

[Article by Woraphot Na Nakhon: "Know How To Control Mosquitoes; Beware of Dengue During the Rainy Season"]

[Excerpt] [passage omitted] "In many places, there have been reports that the number of people with dengue is increasing. This is the rainy season and so many containers that were empty during the dry season are beginning to fill up, providing an excellent breeding place for mosquitoes. It takes less than 10 days for the larvae to grow into adult mosquitoes. The mosquitoes are spreading dengue fever just as in previous years," said Prakhong Phan-urai, the director of the Division of Medical Entomology, Department of Medical Sciences, concerning how mosquitoes spread dengue fever. He also said:

"Dengue fever is caused by the dengue virus, which is transmitted by the aedes mosquito. Thus, to control dengue, we have to eradicate aedes mosquitoes, which bite during the daytime and which breed in such places as earthen jars, water tanks in bathrooms, and other water containers in houses.

"Even though dengue is an old disease, it is still a very worrisome disease, because it is still very prevalent in Thailand. The number of cases has declined somewhat, but the number of patients is still very high. This is only May and we have not really entered the rainy season, but already more than 27,500 people have contracted this disease," said Mr Prakhong.

Two years ago, that is, in 1987, there was an epidemic of dengue fever. The number of cases of dengue was the highest in 29 years, that is, there were 154,230 cases. That year, the Ministry of Public Health issued a report

stating that 794 people died from dengue fever. In 1987, the number of people suffering from dengue fever was five times higher than in 1986. Hardest hit was the northeast. This was followed by the central region, the north, and the south in that order. The provinces with the largest number of cases were Mukdahan, Tak, Nakhon Phanom, Krabi, Sakon Nakhon, Uthai Thani, Samut Songkhram, Phetchaburi, Phetchabun, and Chanthaburi.

As for why there was an epidemic of dengue fever in 1987, a research report by the Epidemiology Division stated that this was caused by an increase in the number of breeding grounds for mosquitoes. Also, 80 percent of the breeding places were located near heavily populated areas.

The report from the Epidemiology Division also stated that another reason for the serious outbreak of dengue in 1987 was that epidemics of this disease seem to occur in 2-year cycles. Thus, we are due for another outbreak this year based on this deadly 2-year cycle. This year, special precautions must be taken to guard against dengue.

In order to prevent dengue from becoming a serious problem this year, based on the lessons learned in 1987, the Department of Medical Sciences cannot remain idle. At the beginning of the year, it discovered a solution to test for dengue fever. This solution is the first such solution developed in Thailand. The main substance in the solution is red blood cells from geese. This can be used in hospital laboratories to check blood samples for the presence of the dengue virus without having to send the blood sample to a test center.

This solution has been tested for quality and can be kept for up to 6 months. Each bottle of solution is sufficient to test 30 patients. The results are available within 2 days. The results can be evaluated by comparing them with the tests or using the methods accepted by the World Health Organization. Both are equally reliable.

Even though we now have an efficient solution to test for dengue fever, which makes it easier to treat patients, control is still more important. This year, there will probably be a large number of cases of dengue. That is why the director of the Division of Medical Entomology has been recommending ways to prevent contracting this disease. [passage omitted]

## VIETNAM

### Nationwide Malaria Control Efforts, Problems Reported

BK0308091989 Hanoi Domestic Service  
in Vietnamese 1430 GMT 1 Aug 89

[Text] Over the past 6 months, under the National Program for the Prevention and Control of Malaria in Vietnam, great efforts have been made in coordinating the activities of those sectors dealing with malaria control in rubber plantation areas, at water conservancy

project sites and new economic zones, and in those areas—belonging to various provinces and cities—highly infested by malaria. So far, the malaria infestation rate in various northern provinces has been relatively stable. In southern and central highland provinces, malaria continues to be in an alarming state.

To prevent malaria nationwide, since early this year the Ministry of Public Health has used \$200,000 to buy medicine and other means to serve various antimalaria programs. While the state has made substantial investments in the antimalaria program, many provinces and cities have not yet concerned themselves with this task.

In certain areas, the funds allocated by the state to antimalaria activities have only been on paper and have not been sent to the recipients. Antimalaria drug and mosquito control chemicals have continued to be piled up at provincial and district levels and have not yet reached the hands of the patients.

A number of localities such as Ha Son Binh, Lam Dong, Song Be, and Gia Lai-Bong Tum, health cadres have failed to pay attention to antimalaria activities. While busying themselves with the task of territorial reorganization, some provinces have not yet been able to provide guidance for this preventive task.

## HUNGARY

**Contagious Lung Diseases Caused By Polluted Air**

54003008 Budapest NEPSZAVA in Hungarian  
13 Jun 89 p 11

[MTI report and commentary by "(nogradi)": "All Data Must Be Made Public; Polluted Air Causes Contagious Lung Disease at Pecs; Environmental Protection Also Constitutes Policy; Babies Drink Water Containing Nitrate; Data Pertaining to Radioactive Contamination Kept Secret"]

[Text]

**Official News Agency Report**

By now, even environmental protection has become the subject of political battles in Baranya County, where a number of environmental concerns have arisen in recent times, according to a statement at Monday's County Council meeting in Pecs. Emotions were and continue to be stirred by topics like the Ofalu nuclear dump, uranium mining in the Mecsek region, and the case of contamination in Pecs. Demonstrations, open letters and responses, petitions, and accusations excite the public. This is one reason why the county council undertook to make a thorough and critical examination of the environmental protection situation.

Submissions to the council clearly reveal that despite all efforts and accomplishments, environmental deterioration in the county has not been stopped, moreover, in certain areas and in certain respects the situation has become aggravated. A report presented by the Public Health and Contagious Disease Station revealed some shocking data. Day after day, two-thirds of the people of Baranya are forced to breathe polluted air. The situation is particularly critical in Pecs, where the odor and bacterial contamination of the Southern part of the city provides increased concern. Physicians have detected certain contagious lung diseases heretofore barely known in Hungary. By the end of last year 79 persons had fallen ill, and 331 were contaminated by airborne pathogenic agents from the sewage treatment plant. Within the county 163,000 persons drink water that is harmful in one way or another. As a result of consuming water with a high nitrate content, 285 babies have fallen ill during the past 20 years. Five of them died.

The county council adopted a position according to which all data pertaining to environmental protection must be made public. In this context the council deems unacceptable the secrecy that surrounds data pertaining to the uranium ore mining activities in the Mecsek region, or more accurately to radioactive pollution and charge. If needed, the relevant Hungarian-Soviet interstate agreement should be modified. The council decided to develop a long-range plan for the solution of environmental protection problems. Within that plan the discontinuation, or at least the moderation, of pollution sources directly affecting human health will receive special priority, because the death rate in Baranya is higher than the national average, and health damage caused by the environment contributes greatly to the higher death rate.

**Commentary**

It is terrifying to think about the number of sins we and other people committed against the earth—our once and forever nonrenewable treasure—in the years when vigilance was demanded. I am reminded of the bitter words of an acquaintance of mine: Don't grumble, there were times when "in order to mislead the enemy" even the mention of uranium mining in the Mecsek region was prohibited, and everyone said that they were mining bauxite. The subsequent openness—similarly restricted from the outside—opened our eyes, and those who were muzzled for years but knew a lot opened their mouths. And now we could ascertain that we had dealt ruthlessly with the people, body and soul, and with the environment.

The MTI report refers to some shocking data. It is indeed shocking that in the city and environs of Pecs—often referred to jokingly as "The West"—the death rate is higher than average. This was caused by an outlook on life which claimed that "the human being is of the greatest value." In this university city, and in the county in which the city is located, two-thirds of the people inhale polluted air. In a city proud of its famous medical school, whose clinics most certainly employ outstanding professionals, some hardly known contagious diseases are registered.

The force of the people's voice has provided nourishment to the leaders of the county council to make their terrible troubles public. We know that nothing will change just by talking about it. But the force of the spoken word, of openness, is greater than ever. But is it large enough to bring about change?

## INDIA

### Center Reports High Malaria Incidence in Madras

54500128 Madras *THE HINDU* in English  
10 Jun 89 p 3

[Article: "Incidence of Malaria High in Madras"]

[Text] Madras accounts for 60 to 70 per cent of the total malaria cases recorded in Tamil Nadu and has become a centre for disseminating the disease to other parts, says a recent study of the Malarial Research Centre, New Delhi.

Large-scale construction activity in the last decade, resulting in an increase in the number of labourers from different parts of the State, and the expansion of the city without adequate drinking water supply, proper drainage system and the construction of flats with open overhead tanks and wells were responsible for the proliferation of mosquitoes, especially the vectors of urban malaria, the study said. The poor drainage and open water-storage structures served as ideal breeding sites.

There is an urgent need to establish an organisation which could handle the situation effectively. Alternatively, the existing mosquito control programme should be modified to produce better results both qualitatively

and quantitatively, the report said. A master plan for the control of malaria in Madras has been drawn by the Centre.

Inclusion of entomologists at different levels of operation, and continuous evaluation and monitoring of the programme are recommended in the master plan. Health education in schools, social organisations and other institutions is also proposed, and the entire programme may be evaluated by a steering committee headed by the Chief Secretary. The committee should remove the bottlenecks in the programme.

In the city, there are about 41,400 overhead tanks, 77,717 wells, 51,320 cisterns and a network of 452.4 km of sewage drains, which harbour malarial mosquitoes. The 38-km stretch of waterways such as Cooum, Adyar, Buckingham canal and Otteri nalla are replete with water weeds (water hyacinth and others) and are fertile breeding grounds for the vectors. They have to be cleaned periodically to arrest the multiplication of mosquitoes, the report said.

The transmission of malaria in the city is perennial, and it peaks during July-August and October-November. Malaria control is a challenging problem. Peak incidence was recorded in 1985 when 51,376 persons suffered the attack of malaria. In 1986, the number declined to 39,197. The city witnessed a sudden spurt in the incidence of the fever in 1975, when a 15-fold increase was recorded compared to the previous year in the number of patients who showed positive symptoms of the fever. From 1975 to 1984, the number of malarial cases in the city hovered between 30,000 and 45,000 a year.

## DENMARK

**Minister Opposes Plan for Secret AIDS Testing**

54002510 Copenhagen BERLINGSKE TIDENDE  
in Danish 9 Jul 89 Sect I p 1, Sect II p 2

[Article by Thomas Uhrskov: "Plan for Secret AIDS Test"]

[Text] The National Health Service desires to test people in secrecy for AIDS. Minister of Health Elsebeth Kock-Petersen is resisting, and finds the idea offensive.

In order to get a clear picture of AIDS among heterosexual people the National Health Service wants permission to carry out AIDS tests on people who, for entirely different reasons, are having blood tests. The tests would be carried out without the people concerned being informed of them. "These 'secret' and totally anonymous investigations are absolutely necessary if we want to limit AIDS infection. But since the procedure is a clear departure from past Danish research practice, we need the acceptance of the politicians," said chief physician Michael von Magnus, who is responsible for the National Health Service AIDS Secretariat. Michael von Magnus maintains that the spread of AIDS outside of the risk groups is not alarming. "But we are required to keep track of it."

The procedure, which is called "anonymous unlinked testing," is recommended by WHO [World Health Organization], which is normally very reluctant to allow research methods which are open to ethical criticism. Today secret testing is used in the United States, England, Sweden and Norway, among others.

"But it is not being done in Denmark. I will oppose it anyhow," said Minister of Health Elsebeth Kock-Petersen (Liberal Party). "It is an unbelievably bad idea, which I find very offensive. I do not approve of it!"

Michael von Magnus emphasized that the tests would be totally anonymous: "Nobody will be able to trace the people behind the blood tests, and there will be no registration of names or places."

Today there is no requirement for actual juridical approval in order to introduce the secret testing. But at a meeting on 22 June at the National Health Service Danish AIDS researchers and those treating AIDS patients agreed not to introduce the method without first having political approval.

The desired AIDS test includes periodic and secret investigation of all patients who for some other reason have had blood tests taken, for example in the emergency room, gynecology clinic, venereal disease clinic or in a doctor's office.

The wishes of the National Health Service should be considered in light of the fact that AIDS has spread to the heterosexual population. One hundred thirty-five

Danish women have the first stages of AIDS. Of these, 35 believe they were infected through heterosexual contact.

**Danger of AIDS Not Exaggerated**

At the same time that people are getting tired of hearing about the danger of AIDS, politicians have cut down on funding. "That is dangerous, indefensible and a waste of money" say AIDS researchers and doctors. Every month there are 20-25 new cases of the illness. The increase is greatest among heterosexuals.

There was a time when all Danish TV viewers whistled the three notes from the jingle "Remember the condom!"

But today this minimal hit is more or less forgotten. City buses are no longer equipped with meter-long condom ads. Newspapers have stopped publishing the latest news about the AIDS epidemic. And the politicians have long ago stopped voting special appropriations for information about and research in AIDS.

**The effect was predictable:**

"Now that AIDS business was certainly a bit overdriven. The nightmare forecasts did not come true. AIDS is certainly an overstated phenomenon." Those are the attitudes. So claim the doctors, anyway, and others whose work forces them to take AIDS seriously.

And in the meanwhile the statistics continue to climb. Almost certainly not as rapidly as during the fright of 1987, but across a much broader field.

Every month between 20 and 25 Danes get the message: "You are in the first stages of AIDS." During the same period between 10 and 12 people are hospitalized with an outbreak of the illness. And an increasing number of them do not belong to the known risk groups. Thirty percent of the 115 women who have the first stages of AIDS (HIV positive) are believed to have become infected through regular heterosexual contact.

"Therefore it is extremely dangerous to de-escalate the AIDS campaign," maintains Senior Doctor Jens Ole Nielsen, who treats half of the country's AIDS patients at Hvidovre Hospital. He continues: "Large amounts of effort and money have been expended to create awareness of this disease. If we do not continue now with a little more emphasis, people will be left behind in a kind of a vacuum. People believe that the danger is exaggerated. It is not. And what is worse, we have no check against the spread of the disease among heterosexuals."

In 1987 the politicians appropriated an extraordinary 10 million kroner for AIDS information. The next year the special appropriation rose to 18 million. But this year a corresponding amount (18 million kroner) alone will not cover the campaigns against the spread of AIDS and preventive work against other diseases. It is estimated that the AIDS campaign pool is thereby reduced by 5 million kroner.

"Minister of Health Elsebeth Kock-Pedersen, why is that?"

"Because the applications that we received for support of the AIDS campaigns did not have the necessary quality."

"Does that mean that if they had 'the necessary quality' the appropriations would not have been reduced?"

"I really cannot say anything about that. The applications were just not good enough!"

The minister of health does not agree with hospital personnel at the country's AIDS clinics, who say that "the population no longer takes AIDS seriously." Elsebeth Kock-Petersen says: "I definitely believe that they do, but it is not possible to prove the very great amount of attention being paid to the disease. Now that attention has found its proper resting place. Henceforth we will give higher priority to the diseases which affect a great many people. Namely, cardiovascular disease, traffic accidents and cancer."

This year an estimated 20 million kroner will be spent on information about AIDS. The money will come from the state, counties, municipalities and private funds. As a comparison, the Swedish state alone spends five times that much money for information campaigns—more than 100 million Swedish kronor. Also AIDS researchers notice the declining political interest in the disease. Professor Jorn Olsen, leader of the adjudicating committee for AIDS research, the medical science research council, says: "In 1986, 1987 and 1988 we received research money almost before we asked for it. This year none was appropriated—but we are still hoping. If we do not continue the work, part of the past three years' expenditure of funds will be wasted, as much of it was invested in education of people and technical equipment."

Doctor and scientist Jan Fouchard, who is active in the National Organization of Gays and Lesbians said: "It is very important to determine whether AIDS campaigns are effective. But today it is unbelievably difficult to get money for behavioral research. Last year we received 300,000 kroner—this year nothing. In the organization much of the work is done on a volunteer basis, and that cannot continue."

Treatment of an AIDS patient costs between one-half and one million per year. Despite financial problems the research has made progress.

Senior doctor Jens Ole Nielsen, head of the AIDS department at Hvidovre Hospital said: "Today it is possible for us to fight some of the resulting diseases that AIDS patients are dying of, including pneumonia. By giving Retrovir it is possible to prolong a patient's life a little, and a new substance, Isoprinosin, which has proved to postpone the time when AIDS breaks out in those who are HIV positive."

And meanwhile the statistics continue to grow. This was the situation as of 1 June this year:

—1800 known cases of HIV infection, of which 115 are women.

—5000 estimated to be HIV infected.

—435 cases of AIDS, of which 28 are dead.

### AIDS Patients May Have Long Wait for DDI Medicine

54002509 Copenhagen INFORMATION in Danish  
19 Jun 89 pp 1, 12

[Article by Anne Brockenhuus-Schack]

[Text] The drug DDI is five times as active and seems to have fewer side effects than Retrovir.

It may be as long as a year before Danish AIDS patients can participate in a trial of a new drug, Dideoxyinosin, DDI, promising results of which were reported recently at the international AIDS conference in Montreal.

Hvidovre Hospital will start out by asking the drug's producer, Bristol Meyer, for permission to conduct laboratory tests, senior physician Lars Mathiesen, MD, told INFORMATION.

Researchers at the National Institutes of Health in the United States tested DDI on 18 patients with AIDS and AIDS-related syndrome and noted an improvement in the patients' immune systems and a decrease of HIV virus in their blood. The patients had an average weight gain of 2 kg, which was regarded as an indication that they were doing better. At the same time there are some indications that the product also has an effect on patients with HIV.

The drug is very similar to the only previously known effective medication, Zidovudin, which is known as Retrovir in this country, but the new drug is five times as active and appears to have fewer side effects. In particular it does not have such a violent effect on bone marrow as Retrovir where severe anemia can make it necessary to inject red blood cells. However two of twenty-odd patients who were given DDI had to stop because it had an adverse effect on their bone marrow, according to Lars Mathiesen.

He said it is much too early to say anything about side effects and they are just making a decision now in the United States concerning a dose for large-scale tests involving several hundred patients.

### Price

The senior physician also said it is too early to say whether DDI will be as expensive as Retrovir because the price of the drug has not yet been established. Nor is he sure whether this is an entirely new drug or a so-called "shelf product," i.e. a drug developed for other purposes that was not tested on AIDS patients until later, as was the case with Retrovir. Retrovir was originally produced

from herring sperm but later it proved possible to produce this active substance synthetically.

Concerning a Danish tryout of the drug Lars Mathiesen said, "It depends entirely on how much of it is available. But it will probably take a year to reach a satisfactory agreement with the manufacturer and receive permission from the Health Agency to test it on Danish patients."

### Isoprinosin

Danes attending the Montreal conference presented results from the Danish-Swedish test of isoprinosin's ability to prevent HIV-positive patients from developing AIDS. Some 886 HIV-infected people took part in so-called placebo tests for half a year, with one group receiving the active substance and the other ordinary calcium tablets. In the first group only two people, or 0.5 percent, developed AIDS during the period while 17, or 4 percent, of the second group developed the disease.

Senior resident Jan Gerstoft, MD, said at the AIDS Fund's press conference Friday that there was no significant difference between how advanced the HIV infection was in the two groups and that the results of the experiment can hardly be attributed to chance. No objections to the Scandinavian research were raised at the AIDS conference either.

### Change of Course

There were signs at the international conference that research is in the process of changing course and applying entirely new principles. As an example of this, Lars Mathiesen pointed to soluble CD4, which American AIDS researcher Robert Gallo is working on. CD4 is the molecule in the white blood cells to which the virus attaches itself. The hope is that if free CD-4 molecules are injected into the organism the virus will prefer them to the white blood cells. Furthermore there is a possibility of combining the injected CD4 with a poisonous substance that inhibits or kills the HIV virus. A large-scale American experiment is currently under way at several centers simultaneously, but the results are not yet available.

### Heterosexual Infection

Dr Mads Melbye, of Cancer Prevention, who also attended the conference, said that heterosexual infection is a growing problem outside Africa too—especially in Central and South America at the moment, but the same tendency can be detected in the United States, Europe and Asia. It is estimated that at the end of 1990 there will be more new AIDS cases among drug abusers than among homosexuals.

In the big American inner cities the incidence of syphilis among blacks has tripled since 1984 and it is feared that this development along with the rising abuse of "crack" will lead to a heterosexually-transmitted HIV epidemic in these areas in the near future.

"Crack" is a synthetically produced drug that is cheaper than heroin and is especially widespread among non-whites. Like other narcotic drugs it reduces judgment—also with regard to the selection of sex partners and sex practices—which could affect the size of the epidemic.

### Tighter Rules for AIDS Testing

54002507b Copenhagen BERLINGSKE TIDENDE  
in Danish 25 Jun 89 p 7

[Article by RB: "Precise Rules for HIV Testing"]

[Text] Conservative Folketing member Karen Højte Jensen wants to ask Minister of Health Elsebeth Koch-Petersen (Liberal Party) to make sure that the National Health Service makes precise rules as to when physicians must subject their patients to HIV testing.

"It is every individual's right to decide whether he or she will be given an HIV test or not. It must be completely clear, as a general starting point, that the patients will take part in all decisions concerning themselves," says the Conservative Party spokesman on the subject of AIDS.

In a study conducted by Doctors Allan Krasnik and Jan Fouchard, half of the 700 physicians who were questioned answered that they would subject patients to HIV tests without first asking their permission if they felt it to be medically warranted.

The report also says that more than one fourth of approximately 2,000 doctors, nurses and nurses' aides feel powerless and uneasy at having to work with HIV-infected individuals. "It is shocking that Danish health professionals are lacking in knowledge regarding AIDS to that extent," says Karen Højte Jensen.

### Study Finds Health Professionals Poorly Prepared to Deal With AIDS

54002507a Copenhagen DET FRI AKTUELLE  
in Danish 22 Jun 89 p 20

[Article by Ruth Northen: "The Agonizing Fear"]

[Text] The authors of the big new study of the attitude toward AIDS of health service personnel are frightened by the results. Poor training regarding AIDS results in fear and a desire for HIV-positive individuals to be prevented from engaging in sexual intercourse.

People who are employed in health services have been left in the lurch. They are the victims of their own fear of the new disease, AIDS, and their terror at the thought of being infected with it. The training that has been provided has been far from sufficient, and health professionals also have not been able to discuss the matter with each other and other people thoroughly because there has not been enough time and there have not been enough opportunities to do so.

The result is that more than one out of every four feels so much fear and repugnance in regard to the possibility of coming in contact with HIV-positive patients in their work that they would prefer to have nothing at all to do with HIV-infected individuals. Still more of them—70 percent—say that they cannot imagine working in a ward filled with HIV patients and nobody else. The reason for this is a feeling of inability to do the work and fear of infection.

### Forgotten Training

"In actuality, it is such a long time since we in Denmark have had any experience with epidemics involving serious diseases that health professionals have forgotten how to go about tackling that sort of thing," say the two doctors, Allan Krasnik and Jan Fouchard, who carried out the big new study among a total of fewer than 2,000 physicians, nurses, and nurses' aides.

They themselves are a bit frightened by the results obtained from the study. The intention was to get a general idea of professional reactions to dealing with HIV at the present time, when the AIDS epidemic is actually present, even though it has not developed as violently as was feared at first.

But they did not expect to be confronted with as strong a feeling of inadequacy and hesitancy as is indicated by the figures.

In particular, the widespread fear took them by surprise.

"We must do a better job of analyzing what forms the basis for that fear," the two physicians say. "Naturally, AIDS has to do with a large number of familiar taboo concepts: blood, sex, death, and so on. But it is nevertheless hard to understand how otherwise well-trained groups of personnel, with a tradition of responsibility and commitment toward sick people, allow themselves to be dominated by the new disease to that extent," Fouchard and Krasnik say, and they refer, among other things, to the part of the report that indicates that, for example, close to 12 percent of nurses' aides do not dare to sit and hold an AIDS patient's hand without wearing a glove.

"Sixty percent feel that they are in danger of being infected with the HIV virus in their work, even though all experience up to now shows that the danger is minimal and is much less than with other diseases that also are dangerous. That must indicate that even the 'technical' training that is given is inadequate. Most people in the health service think the same. A third of the health service personnel as a whole say that they actually have not had any instruction at all on AIDS. Where nurses' aides—the people who have the most frequent contact with patients—are concerned, that holds true of more than half of them.

"And we have been in the midst of the epidemic for seven or eight years!" Jan Fouchard and Allan Krasnik say.

In their opinion, it is both embarrassing and dreadful that training initiatives have been so infrequent.

It is also embarrassing and dreadful because there is a clear-cut connection between poor training and fear and inhibiting attitudes toward those who have contracted the HIV virus.

As a glaring example of the latter, they mention that 20 percent of all those responding to the survey thought that it would be reasonable to demand that people infected with the HIV virus should not have sexual intercourse with anyone for the rest of their lives.

### Alone

At meetings they themselves have held at various locations, they have witnessed agitated discussions because some people cannot understand why one cannot just administer tests without permission. "Such strong reactions also make many individuals respond, in the survey, that HIV-positive people should not work in operating rooms. In particular, they say that a fair chance to discuss or think the consequences through properly has not been provided," the two authors of the report say.

Their study shows that many of the employees feel alone in their uncertainty. They do not talk very much at work about their feeling that they are in an awkward situation. They do not give each other support by sharing accounts of their experiences.

Jan Fouchard and Allan Krasnik hope that the study itself has perhaps constituted an incentive to get such exchanges started, and they say that some people added to the questionnaire the following information: "We sat down in the ward and talked over the questions and answers in connection with the study.

An educational function [regarding the AIDS issue] is clearly a good thing, the two doctors say. However, they have more concrete proposals for an integrated effort that can give health professionals the knowledge they need and provide an opportunity to carry out the needed remolding of attitudes.

### Organizations Get Moving

That will require that professional organizations become involved too. In addition to the Medical Association, the Danish Nurses Council and the Municipal Workers Union were involved in the preparatory work for the study, while the National Health Service and the Medical Science Research Council were in charge of the financing. There is going to be another chapter, but there should be many others. Essentially, it could provide information on how the population in general feels about HIV and AIDS since such big differences in views have become apparent among health professionals, Fouchard and Krasnik say.



On the whole, research on behavior will constitute an important basis for the entire AIDS effort in the future, too, and one cannot rely on studies from other countries here, either.

"We ourselves must set aside money and designate people for these studies if they are to be of any importance," they say.

"What is involved is Denmark, with Danish traditions and attitudes," the two doctors say.

## ICELAND

### Officials View AIDS Statistics, Trends

54002506 Reykjavik MORGUNBLADID in Icelandic  
14 Jul 89 p 25

[Article: "Five More Infected With AIDS Since Turn of the Year: Difference of Opinion Whether to Look for the HIV-2 Virus in the Blood"]

[Text] Five more individuals have been added to the group of people who have been diagnosed to be infected with AIDS since the turn of the year. This brings the total number of people known to be infected with the HIV-1 virus up to 53, and of those, 12 have been diagnosed as being in the final stages of the disease. According to Deputy Surgeon General Gudjon Magnusson, 4 of those were infected through blood transfusions, and 3 of those were diagnosed this year. No one in the country as been diagnosed infected with the HIV-2 virus which was first discovered in 1986 in West and Central Africa and has been detected in the West, for example, in Portugal and Belgium and one case has been diagnosed in Sweden. Because of limited spread of the infection, opinions differ whether to start looking for both viruses in the Blood Bank. It is estimated that in 60-70 percent of the cases, HIV-2 will be found when testing for HIV-1.

### HIV-2 Test a Must

According to Dr Haraldur Briem, internist at the City Hospital, it was first thought that the HIV-2 virus was less dangerous than the HIV-1 virus but it has come to light that it causes AIDS just as well. Dr Briem said that the test which is used in diagnosing AIDS in Iceland in almost all instances does detect the virus, however, he said, there is a new test which measures both viruses which he expects to be implemented here. "It is difficult not to test for both viruses, as it is known that the HIV-2 virus is found in Western Europe, although the likelihood [of its occurrence] is very minor the way things are today, said Dr Briem. "I don't know how it could be excused if the virus were to be found after these tests are on the market." Dr Briem said that the HIV-2 virus is probably just as dangerous as the HIV-1 virus, but in the beginning it was considered somewhat less aggressive. The virus has not yet had the time to spread like the HIV-1 and it takes 8-9 years from the time of infection until infected people develop AIDS.

### HIV-2 Diagnosed in 60-70 Percent of the Cases

According to Blood Bank Director Olafur Jensson, no decision has yet been made whether to start testing for HIV-2. The test used today is said to detect the HIV-2 virus in 60-70 percent of the cases. In a status report issued by directors of Nordic Blood Banks on both the HIV-1 and the HIV-2 virus, it is stated that only several cases involving the HIV-2 virus have been found in the Nordic Countries and that in each and everyone of these cases, the infected persons came from the Western part of Central Africa. It also came out that the tests used cover most of the persons who carry the HIV-2 virus, and as there has not been a definite case involving an individual infected with both viruses in the Nordic Countries, it is not recommended to make the HIV-2 test mandatory.

"It is said that it is very costly to reach the cases that might exist and they are not very numerous after most of the virus carriers have been isolated," said Dr. Jensson. "One person here and there is added to the list, but I think that it is known that those who are in the risk groups take this into consideration and do not give blood and look elsewhere to find out about their own condition."

### Most Cases From Africa

Prof Margret Gudnadottir says that people everywhere are wondering how much emphasis should be put on testing for the HIV-2 virus. Where there is a high frequency of AIDS, emphasis is put on testing for the virus if the HIV-1 virus cannot be found and the patient's condition justifies further examination. Blood Banks have not started testing for the HIV-2 virus anywhere, and in the United States, where there is a great crusade under way to test for the virus, only very few cases have been diagnosed among immigrants from Africa. The same applies to the very few cases that have been diagnosed in Europe. "The spread is not at all similar among these two viruses, whatever may happen later," said Dr. Gudnadottir. "I only hope that the education and information blitz conducted in the past years will result in less spread of the virus. If suspicious cases occur and the HIV-1 test is negative, we will, of course, look for the HIV-2 virus but there will not be any group testing for the time being. There is no reason for that anywhere in the West, as far as I know. Where this has been done, nothing has been found, but if the virus starts to change, immediate measures will be taken to start testing in the Blood Banks."

### Five Died of AIDS

Five people have died from AIDS from the time the first case was diagnosed in 1984. Of the 53 persons who have been diagnosed infected, 36 are homosexuals or bisexuals; 8 are drug addicts; 1 is both a homosexual and a drug addict; 4 are heterosexual and 3 of those are women. According to Deputy Surgeon General Gudjon Magnusson, 3 of the 4 people who contracted AIDS through blood transfusions are women. It is known that

one of the women died from AIDS, but it is unknown whether the two others died from AIDS, as there were other diseases involved. When the people who have been diagnosed infected with AIDS are divided by sex, the ratio is one woman for every five men. Most of the infected people are between 20-29, or an average age of 27, and 13 are between age 30 and 39.

## NORWAY

### Tick-borne Encephalitis Virus Threat Viewed

54002511b Oslo AFTENPOSTEN in Norwegian  
1 Jul 89 p 20

[Article by Lene Skogstrom: "European Tick With Dangerous Virus"; first paragraph is AFTENPOSTEN introduction]

[Text] Should you go on a hiking trip in Central Europe, or a camping trip in Sweden? Be on the lookout for forest ticks, or get vaccinated. The virus disease TBE is worse than the disease carried by the Norwegian tick.

So far this year the National Institute of Public Health [SIFF] has vaccinated about 100 people against the virus disease TBE, or "tick-borne encephalitis."

"The vaccine is not recommended for the average tourist," said Senior Doctor Vigo Hasseltvedt at SIFF. "It is only people who are especially exposed to tick bites who get the vaccine, for example orienteering runners or forestry workers. The vaccine is available in limited quantities in Norway, and a recommendation is required from the country that one is going to visit that the vaccine is necessary."

### Paralysis

The Norwegian forest tick transmits bacteria which can cause the disease "tick-borne borreliosis." This can cause both painful joints and paralysis. But fortunately antibiotics can overcome borreliosis—provided one first gets the correct diagnosis.

It is worse with the European variant of the virus. There is no medicine against it. The symptoms of TBE are similar to those of brain membrane inflammation—fever, headache, and stiff neck. In 10 percent of the cases paralysis appears, especially in throat and arm muscles. Cramps and memory disorders can also occur. As much as 3 weeks of acute illness are expected, but it can take weeks or months to become entirely healthy.

### Swedish Tick

"The disease appears to have spread in Europe," said researcher Reidar Mehl. "In Sweden it has appeared in the tourist paradise Gotland, the Malar Islands and parts of the coast of Svealand and Gotland. Also on land we find the intoxication illness, which goes by the name 'Kumlinge disease,' because it was first discovered on Kumlinge Island."

The vaccine provides very good protection against the disease—90-95 percent. One can also protect oneself against tick bites by wearing long stockings and high boots. Ticks often fasten themselves to the ankles.

"The TBE virus has also been detected in Norway, but in a much weaker form," said Mehl. "The illness becomes worse the farther east one travels in Europe. In some places in the Soviet Union there is a 20-percent mortality rate among those who are infected."

In Sweden the number of cases that are treated in hospitals has risen steadily in recent years. During the 60's and 70's there were about 20 cases reported per year. In 1987 there were 65 cases reported, and 71 in 1986.

The Swedish Ministry of Health recommends vaccine for persons who are traveling to the most tick-infested areas along the coast where many cases of the disease occur. In certain places in Austria vaccination is required.

### Norwegian Coast

Here in Norway there are forest ticks along the entire coast, except for the northernmost counties.

There is no reason to panic if you are bitten by a tick this summer. Only 20-30 percent of the tick nymphs and 40-60 percent of the adult ticks are carriers of the bacteria which can give borreliosis.

"The chance of being infected increases with the number of times the tick attaches itself and sucks blood," said Mehl. "After 24 hours the danger begins. Pay attention to the symptoms. Often there is a red ring around the place of the bite a week or two later. That is a sign that the bacteria is leaving its mark. But there is no need to ask the doctor for antibiotics the moment you get a tick bite!"

### Health Official on AIDS Trends

54002511a Oslo AFTENPOSTEN in Norwegian  
14 Jul 89 p 3

[Article by Tore Oksholen: "15,000 Norwegians Are Risking HIV Infection"]

[Text] The sexual behavior of over 15,000 Norwegians is such that they run the risk of being infected with HIV. More heterosexuals are continuously being infected. In a few years many drug addicts are going to develop AIDS in Norway.

So far this year 19 new AIDS cases have been reported in Norway. Of a total of 801 HIV-infected persons in this country, 18 percent admit that they were infected heterosexually. This percentage is rising.

"Fifteen thousand people have caught sexually transmitted diseases in this country. This involves diseases

such as chlamydia and gonorrhea. The means of infection is the same as with HIV, and one thereby enters the risk group for being infected with HIV," said Senior Doctor Arve Lystad in the Division of Preventive Medicine.

The latest figures for HIV and AIDS were presented and commented on at a press conference in Oslo on Thursday. Participants in the panel detected a significant increase in the number of AIDS patients beyond the 1990's. Many drug abusers will get AIDS in a few years. So far 279 drug addicts are infected with the HIV virus. That is over one-third of all those who are infected with the HIV virus. At the same time non-drug addicts make up more than 4 percent of all AIDS cases in Norway.

"We must be prepared for a sharp increase in the group of drug addict AIDS patients. Over the entire world the drug addict percentage of AIDS patients is growing. In Bangkok the percentage rose from 1 to 40 percent in less than 1 year, from 1987 to 1988. The reason why the number is so low in Norway is that we are behind in the development of the disease," according to Martin Blindheim from the journal DRUG ABUSE.

#### Private Testing

Senior Doctor Johannes Thorvaldsen, in the Environmental Department of the Oslo Municipality, discussed the legal problems around HIV testing. Public institutions do not have access to testing their employees, while there is no regulation against that for private firms. In the United States such testing is extensive. Dr Thorvaldsen knows of no specific cases of this in Norwegian firms. But it is known that SAS [Scandinavian Airline System] tests its pilots, as do most other western airline companies.

#### Survey Finds Public Less Concerned About AIDS

54002503 Stockholm DAGENS NYHETER in Swedish  
29 Jun p 9

[Article by Gunilla Tengvall: "Fewer Frightened By AIDS Threat"]

[Text] The AIDS threat has become somewhat less frightening and the use of condoms has declined during the past year. This is evident from a study undertaken by assistant professor Bengt Brorsson at the Department of Social Medicine at Uppsala.

Bengt Brorsson has studied the Swedes' views on AIDS each year since 1986. In 1987 AIDS ranked first among important social issues. This year, the disease ranked fourth after drug use, criminal violence and environmental destruction.

Of the 4,000 interviewed, 25 percent had intercourse with a condom "about once during the last month." The figure was 27 percent the year before. In 1986 it was 20. Single persons without a steady partner use condoms

much more frequently than others: 40 percent this year, 44 percent last year and 25 percent in 1986.

The persons interviewed were between 16 and 44 years of age. Thirty percent of them had been celibate during the last month, compared to 28 percent in 1986. The changes in Swedish sex life are consistently this marginal, according to the study.

Spontaneous intercourse between persons relatively unknown to each other is still quite common. In most cases a condom is not used.

The tolerance toward those who are HIV-infected is still limited. In 1986 52 percent said that they would avoid contact with an infected person in the workplace. In 1989 this figure is 30 percent.

This could be due to the fact that the classic misconceptions about how HIV is spread continue to exist, [for example] in public toilets, through kissing, and so on. As many as 26 percent believe that the virus is spread through insects.

Just as the National Accounting and Audit Bureau, Bror Bengtsson is critical of the AIDS delegation's campaigns:

"It focuses too much on condoms. Those infected could simply get the idea that 'as long as I use a condom it's OK,'" he says. "A condom is not a 100 percent protection. It is obviously the infected person's own moral obligation to tell an intended sex partner that he or she is HIV-infected."

"The moral aspects have been pushed aside in the Swedish campaign, and thus the rights of the uninfected as well."

#### Risk Groups

Bengt Brorsson is also of the opinion that the risk groups, homosexuals and those who inject drugs, should be pinpointed more clearly.

"As it is now, there is much indication that the wrong people are using condoms and having themselves tested, usually unnecessarily. And the tests are the most expensive items in the entire HIV budget. The Swedes are the most HIV-tested people in the whole world."

Bengt Brorsson also calls for simpler language in technical matters, such as the danger of anal intercourse.

"The anal mucous membrane has an entirely different absorption capability than the mucous membrane of the vagina. That is why it is possible to use the anus to medicate with suppositories."

However, Bengt Brorsson rates the AIDS watch of the mass media very highly.

"It is considerably more factual than the delegation's campaigns."

### Has not Reached Its Target

"I am disappointed that the AIDS information in mass media and through campaigns has not produced the intended result," says Assistant Chief Physician Borje Akerlund at Roslagstull Hospital in Stockholm. "Both a change of attitude and safer sex practices are needed."

"Apparently, the condom is still waiting for a comeback after the contraceptive pill revolution of the 1960's. It is also sad that the intolerance against those with the disease is still so great."

"I believe it is because of the terror propaganda during the first AIDS years, 84-85, that the change in attitude is taking so long."

"At that time AIDS journalism was not as factual as it is now. Then, the newspapers were filled with one extreme, horrifying, case description after another. It gave the impression that what was described was universally applicable, that the disease struck blindly, and so on."

### Give Rise to Thinking

Borje Akerlund thinks that the famous youth rail-pass bag distributed by SJ [State Railways] and RFSU [National Association for Sexual Information] is nevertheless a good initiative.

"The intention is not, after all, to send out Swedish girls with a bag of condoms around their necks as bait for love-sick Italians. The idea is to make young people think."

"Temporary sexual liaisons without condoms involve HIV risks, as well as about 10 or so other venereal diseases, which will impact one's future life."

"But it would be better, of course, if the whole thing weren't so Swedish and so depersonalized. It should be a person, a parent or a teacher giving this good advice, not a state agency."

## TURKEY

### Diarrhea Epidemic Reported in Adana

54002514 *Istanbul GUNES in Turkish* 22 May 1989

[Editorial Report] *Istanbul GUNES in Turkish* on 22 May 1989 carries on page 3 an article by Yasemin Ercenk, who reports from Adana that diarrhea has reached an alarming level there. Specialists say that the onset of the summer heat and the consumption of unwashed fruits are the causes of this situation. There are 230 children in the state hospital under doctors' care, and four children have died of the disease.

### Measles Epidemic Reported in Southeast

54002513 *Istanbul GUNES IN Turkish*  
15 May 1989 p 3

[Editorial Report] The measles outbreak in the southeast has reached an alarming level, with 400 children hospitalized and five pronounced dead. Reports indicate that the age group most affected is from birth to 6 years. Specialists say that the reason for the epidemic is the lack of adequate preventive measures such as shots.

### Green Locusts Seen Again

54002512 *Istanbul Hurriyet in Turkish* 18 May 89

[Editorial Report] 'Green locusts' have been seen in the Kusadasi, Germencik, Karacasu, and Kuyucak Districts in the western part of the country. According to experts, the locusts normally live in the mountains, but this year, due to conditions caused by the drought, they have come down to the lower lands to survive. Since they live on vegetation, they inflict damage particularly on vegetable gardens, cotton plants, and tobacco fields, as well as fruits and olives. Special precautions are being taken in Germencik and Albeyli since the primary produce of these areas is figs.

10

22161

44

NTIS

ATTN: PROCESS 103

5285 PORT ROYAL RD

SPRINGFIELD, VA

22161

This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, economic, military, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available source; it should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated; those from English-language sources are transcribed, with personal and place names rendered in accordance with FBIS transliteration style.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names rendered phonetically are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source. Passages in boldface or italics are as published.

#### SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in eight volumes: China, East Europe, Soviet Union, East Asia, Near East & South Asia, Sub-Saharan Africa, Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications, which include approximately 50 regional, worldwide, and topical reports, generally contain less time-sensitive information and are published periodically.

Current DAILY REPORTs and JPRS publications are listed in *Government Reports Announcements* issued semimonthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be

provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. New subscribers should expect a 30-day delay in receipt of the first issue.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcover or microfiche) at no charge through their sponsoring organizations. For additional information or assistance, call FBIS, (202) 338-6735, or write to P.O. Box 2604, Washington, D.C. 20013. Department of Defense consumers are required to submit requests through appropriate command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.)

Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.